

**Appropriations Higher Education Subcommittees testimony
Michigan State University President Lou Anna K. Simon
March 2, 2016**

I want to thank Senator Schuitmaker and Representative McCready and your committees for inviting me today. I also want to convey our thanks to Governor Snyder for moving to restore university funding in general to the pre-cut, 2011 level.

Funding formula

I am concerned, however, that for Michigan State University the recommendation falls \$4.5 million short of restoring the appropriation to its FY11 level. MSU has complied with state tuition policy while continuing to build the excellence of its academic, research and outreach programs. Not only do we educate a large proportion of this state's undergraduates, our University Research Corridor studies confirm that we are part of a nationally competitive research cluster that is helping drive Michigan's knowledge economy. Both the individual elements as well as the outcomes of any proposed funding formula must be reasonable, in order to be considered useful.

And as Michigan State continues to increase our capacity to respond to the growing needs of Michigan residents, capping appropriations for Extension and AgBioResearch (Experiment Station) support doesn't make sense. MSU staff and I are eager to work with the committee to resolve these issues.

The people of Michigan face a great many challenges, and by supporting Michigan State and public higher education, you support our state's ability to master them now and in the future. We should have higher expectations together with the actual means to achieve them. Failing that, we fail our students, their families, and our citizen-stakeholders.

Michigan State University is an efficient institution that is committed to delivering value to Michigan residents. MSU operates with \$3,000 less in per student appropriations than our Big Ten peers, representing \$138 million in resources. We operate with \$6,395 per student less than our Association of American Universities (AAU) peers. We are second to last among Big Ten schools in the number of students per employee and we consistently operate with a greater proportion of state-resident students than our Big Ten peers—forgoing approximately \$90M in annual tuition revenue. We enroll more Michigan students than any institution in the state, and given the resident tuition discount, we leave a lot of potential revenue on the table.

**MICHIGAN STATE
UNIVERSITY**

So we would like to see funding for MSU fully restored and maintained at a level more reflective of our value to the people of Michigan, and an adjustment of the funding formula more in line with our actual performance and our research/graduate education mission. We have added an information sheet to my testimony packet to help frame some of my remarks today. It speaks to the momentum Michigan State is developing around key metrics.

Responsiveness of the academic program

I'm going to focus most of my remarks on how our collaborations around the state strengthen communities and regional assets, which you no doubt know is a core mission particular to land-grant universities such as MSU. But I'd like to address the other two important questions you asked, one focused on how we are improving student outcomes and the other on how our academic program responds to market and financial considerations.

As for the responsiveness of our academic program, I want to note at the outset that, by institutional policy, 1 percent of college resources at MSU are reallocated annually for reinvestment into emerging initiatives. This is meant to encourage innovation within colleges and departments and to discourage accumulation of underperforming programs.

MSU offers approximately 400 degree-granting programs of undergraduate, graduate, and pre-professional study. We employ multiple means to ensure courses and programs are current and that they require appropriate levels of student performance. Per our Board of Trustees bylaws, the faculty are delegated the authority to maintain oversight of the curriculum and courses. Numerous committees within the faculty governance structure are charged with evaluating and maintaining degree-granting programs.

Approval of any curricular and programmatic additions are subject to an extensive process that begins at the college and department level with detailed planning and review with the appropriate college-level governance committees. As part of the initial process, factors such as state and national demand, institutional mission, student interest, and market responsiveness are considered to determine whether or not new programs and curricular modifications are necessary.

The development process is highly collaborative and includes students, faculty, college governance committees, and, I want to emphasize, external stakeholders. Once approved at the college level, program recommendations are evaluated by the University Committee on Undergraduate Education or the equivalent at the graduate

level, the University Curriculum Committee, and the Faculty Senate depending on the nature of the request.

All existing MSU programs are routinely subjected to review consistent with processes established within the college to assure programmatic soundness, relevance, and to recommend improvements and modifications. Additionally, each academic program is reviewed centrally through the institutional Academic Program Review process on a seven-year cycle. The Academic Program Review is a critical part of the university's planning process and asks units to think deeply about their purpose, identity, and the activities they engage in to achieve those purposes.

Decisions about modifications and discontinuance of academic programs stem from this review in conjunction with considerations of enrollment, relevance, and institutional strategic direction. Programmatic decisions resulting from these creation and review processes are integrated into the broader annual strategic planning and budget to assess resource needs and potential reallocations.

Supporting student success

Much attention is given today to the cost of education, and rightly so. Student debt is a particular area of concern, but I'll remind you as I have in past years that MSU's record on this score is good. Fewer than half our students graduate with debt, and that debt—at about \$26,000 well below the cost of the average new vehicleⁱ—also is well below state and national averages. Because high-value college educations such as those from MSU pay for themselves many times over in the span of a career, the biggest problem with student debt is when somebody doesn't graduate.

I'm proud to say that Michigan State is at once efficient and effective in our founding mission of opening doors to prosperity to all Michigan residents. Our six-year graduation rate (2008 cohort) is 79 percent, which is 11 percentage points higher than predicted by U.S. News given our student demographics. The number of first time undergraduate students returning for their first fall semester after their original enrollment has increased to 92 percent. And it was nice to see MSU ranked in a recent analysis of federal College Scoreboard data as tops in the state for promoting social mobility—bringing in a large number of low-income students and graduating them ready for great careers.ⁱⁱ

How are we doing that? At the heart of MSU's land-grant foundation is an enduring commitment to successfully educate students from across society. Regardless of origin or circumstance, student success at MSU drives the entirety of our teaching and learning efforts, beginning prior to a student's arrival on campus and extending through graduation.

Student preparation, of course, is important to achieve successful educational outcomes. MSU welcomed its most prepared class in fall 2015 and has improved the average GPA and ACT of incoming students over the last 10 years, while also increasing the size of the class by over 600 students. In fact, MSU educates students from each of Michigan's 83 counties, all 50 states, and over 130 countries. Further, MSU consistently educates well over 8,500 Pell grant recipients—3,000 more than our Carnegie peers.

As a critical first step, MSU offers numerous pre-college programs aimed at building educational momentum for our most vulnerable students. Programs such as Upward Bound, Gear Up, and Educational Talent Search seek to provide the foundation necessary for post-secondary educational success to students from throughout the region, many of whom by the way will pursue education at other state universities and colleges. Beyond those, MSU offers several dozen additional pre-college programs through various institutional channels. You can learn more about these at: <http://spartanyouth.msu.edu/precollege/documents/2014AnnualReports/PC-report-2014.pdf> and <http://spartanyouth.msu.edu/precollege/reports.aspx>.

Once on campus, MSU makes significant effort to assure student success. Beyond the student-focus each faculty member and graduate assistant maintains, MSU is using “big data” approaches to understand individual and trend data on academic outcomes to increase graduation rates, cut time to degree, and close opportunity gaps across gender, race, and economic class.

A large area of effort for us is the MSU Neighborhood Student Success Collaborative, a campus-based, wrap-around student success network that includes support for both academic and personal success. Students on and off campus are served by one of five residence hall neighborhoods. Each features a Student Success Team, which is a multi-functional group identifying students and groups for personalized outreach and interventions. Those can include meetings with advisors, tutoring in the Neighborhood, or study sessions on their residence hall floor. Student Success Teams use personalized and psycho-social analytics in particular to identify students at risk of leaving MSU. To date, those students interacting with the Neighborhoods services experience an increase in GPA of approximately 0.25 and are also at reduced risk of being on academic probation at the conclusion of their first semester.

Michigan State is bringing the Neighborhoods program into the national discussion about student outcomes through our participation in University Innovation Alliance (UIA). MSU is one of 11 public research universities forming a coalition that spans the

geographic, economic, and social diversity of the United States. The UIA was formed to learn from and leverage each other's efforts in student success and retention. We each benefit from being able to observe effective interventions and innovations, and aim to scale them across the whole of the UIA.

The UIA, as part of its efforts to promote student success, has been awarded nearly \$9 million in the First in the World (FITW) Department of Education grant. The grant will focus on monitoring advising analytics to promote student success, with a special emphasis on first generation and low income students. As part of FITW, MSU will have two additional advisors, and one 0.5 FTE analyst, for the duration of the grant.

MSU, as part of its Student Success Initiative, also is launching the Educational Advisory Board's Student Success Collaborative (SSC) Campus tool. The SCC Campus program, with a predictive model and ability to run targeted campaigns at specific high need students, will assist with the FITW initiative and to roll out a more proactive advising model across MSU by providing a deeper understanding of individual students.

Last fall we introduced a "real time" system for instructors to report student grades, engagement, and attendance. Over 32,000 reports came in during the fall, with academic advisors and instructors contacting students to encourage them to use available resources such as office hours, tutors, and study groups. Also, we are implementing a predictive analytics and pro-active advising approach that utilizes 10 years of MSU student data to help us develop "success markers" that we will use to identify students who are off track for graduation.

Other initiatives include the Spartan Success Scholars program, which offers group activities and peer coaching for entering students, and we now have some 1,300 students getting personalized attention through this program. And the Dow STEM Scholars program provides, at no cost to students, intensive academic, career development, and advising for incoming students who declare STEM majors but who are not prepared for college-level math. About 80 percent of students in the inaugural cohort placed into college level math for their first semester and saved at least one semester toward their degree.

These initiatives are working. We are reducing the number of students who go off-track for timely degree completion. We reduced the freshmen academic probation rate last fall to the lowest level in over a decade: 8.7 percent. That's important because students on probation are less than half as likely as other students to graduate from MSU in six years. Students who use Neighborhood services have higher GPAs than those who don't and are more likely to persist to their second year and beyond.

STEM and T-shaped skills

We also are devoting a lot of attention to science, technology, engineering, and mathematics (STEM) education. Our STEM credit hours have risen 38 percent over 10 years, but I should note that they are costlier classes for us to offer due to the specialized facilities and equipment they demand. We are revamping STEM gateway courses to focus less on rote memorization and more on understanding of key concepts to further support student success, and we're a key participant in the Association of American Universities Undergraduate STEM Initiative, which is looking at innovation and best practices nationwide.

We're working to reinvent instruction for the 21st century with what we call the HUB, which is a space for advancing learning by creating, identifying, and accelerating new ways to learn, research, and deliver instruction. Here we will enhance pedagogical and technological support for learning; identify high value learning outcomes and ways to research, measure, and understand those learning outcomes; and help identify intellectual property in the domain of learning.

We know student success is enhanced by high-impact experiences outside of the classroom, and these too are areas of increasing emphasis at MSU. About two-thirds of recent graduates held internships; more than a third engaged in undergraduate research; a quarter studied abroad (versus 10 percent nationally) and half reported volunteer service experiences.

Finally, we're adding more opportunities for students to internalize and exercise the qualities of entrepreneurship, no matter what their major. Last year we added a director for undergraduate entrepreneurship to help implement programs such as our new E-minor, which is open to all students. We're also looking into awarding nano-certificates, badges, and like means to certify skills acquisition for workplace readiness.

The capacity for initiative promoted through entrepreneurship, the ability to pursue disciplined inquiry through research, the cultural competencies gained through study abroad, and the service mindset promoted by community engagement all are qualities necessary to succeed in the 21st century. They also describe what we broadly call T-shaped skills. We employ the letter T as a metaphor for the traditional, deep disciplinary competencies graduates must possess (the vertical stroke) with the added connective qualities of being able to work on a team, communicate across different groups, and to understand other disciplines and cultures as demanded by the 21st century workplace.

It's a concept we're developing with our partners at IBM and others to help shape the learning necessary to thrive in the workplace of today and tomorrow. And it's an appropriate transition to the third key concern these committees have suggested we discuss, how Michigan State partners with businesses, communities, and other stakeholders to strengthen regional assets.

Building capacity around Michigan

Partnerships go back to our very founding 161 years ago as a means to keep Michigan on the cutting edge of knowledge where it counted at the time: Michigan's agricultural and mechanical occupations. The nation's pioneer land-grant university, MSU's method has always been one of partnership—of co-creating solutions with people in their own communities. It's how we get to fully understand both their problems and to appreciate the assets that can be brought to bear.

Community engagement is our mission and our method, and it has never been more important than today. We have a graphic illustration of some of MSU's connections around Michigan.

(See map presentation)

Let's start with our statewide economic impact, just our payroll, other spending and the economic value of our alumni's earnings increment due to their degrees. It's \$5.3 billion a year, with half a billion dollars alone spent with Michigan-based companies.

We've got 83 MSU Extension offices in 81 counties and programs in every county.

We maintain off-campus institutes and centers in Detroit, Flint, Grand Rapids, Holland, and Midland.

We have 18 partner hospitals for our College of Human Medicine, 33 for our College of Osteopathic Medicine and eight College of Nursing clinical partnerships across the state.

MSU's College of Nursing boasts more than 300 preceptors mentoring nursing students in 60 counties.

We have 31 community college consortia or program articulation agreements with colleges and universities around Michigan. We have 18 off-campus degrees, specializations, and certificate programs and off-campus classes in 19 communities from Marquette to Detroit to Benton Harbor.

We own 25,500 acres of property around the state, some of it for our 13 AgBioResearch (experiment station) centers.

Our College of Education Office of K-12 outreach has worked with a number of charter schools, even though we don't issue charters. Overall the college has worked with about 200 school districts across Michigan.

We employ some 11,620 faculty and staff around the state.

We enroll more than 50,000 undergraduate and graduate students, 72 percent of them Michigan residents. Although we prepare them to succeed anywhere in the world and in fact are a top source of talent for global employers, nearly two-thirds of our graduates stay in Michigan after graduation.

2014 graduates went to work for more than 900 employers in the state.

And we engage youth and adult volunteers across Michigan, including some 35,000 who are helping develop leadership and entrepreneurship skills for Michigan's 163,000 4-H participants.

As for alumni, we count more than 300,000 living in Michigan—people who are bringing their knowledge, initiative, and Spartan leadership to communities all across the state. A few of them are in this room today.

What does all this mean? Among other good things, it means Michigan State is deeply and broadly embedded across Michigan, working in communities to bring cutting-edge knowledge, global experience, and a spirit of partnership and co-creation.

MSU in Flint

But what does all this mean at the community level? Our experience in Flint gives us a great example.

Flint is getting a lot of attention recently because of its municipal water crisis, but Michigan State has been actively engaged in helping the people of Flint solve problems, promote prosperity and quality of life, and enhance health and nutrition for a century. We hired our first Extension educator in Genesee County in 1913. Today we have 15 there, with many other specialists available to render service.

Our College of Education has trained teachers and consulted for Flint Community Schools since at least the 1950s, often in partnership with the Charles Stewart Mott Foundation.

Back in the 1970s and 1980s, our School of Criminal Justice developed the original model for the concept of community policing in Flint, a model that's been adopted across the nation and even around the world by places seeking more effective ways to provide public safety and crime prevention. And we're still in Flint, working with the community now to develop procedures suitable for police force little more than a third as large as it had been.

Our College of Human Medicine began developing partnerships with local hospitals in 1969 to train medical students and residents. In 2008, the Mott Foundation saw an opportunity to enhance the community's presence in medicine by bringing a new medical school there, and after studying the potential arrived back at the door of an existing community partner: MSU. So our College of Human Medicine engaged with the community in some 80 meetings and 4,000 surveys to determine not what we think it should get, but what residents wanted and needed. We doubled the number of medical students based in Flint, to 100, with a program focused on multiple aspects of public health.

These are important illustrations of Michigan State's method. We are a knowledge partner, but one that does not impose solutions off the shelf. It's a matter of sustainability, of long-term success. Partnership and co-creation of solutions is our method, and in the case of Flint a very thorough inquiry brought an innovative new program in public health to the community with the support of the Mott Foundation.

It was through this careful assessment of Flint's needs—and positioning of assets including a growing cadre of medical faculty and researchers in Flint—that Michigan State was prepared to swiftly respond to the introduction of toxic lead into the drinking water of its residents.

One such faculty member is Dr. Mona Hanna-Attisha, who with her MSU and Hurley Medical Center colleagues brought the human impact of the lead contamination to light even though some tried to dismiss it. But this isn't about what federal, state, or local officials should have done. It's about having the embedded capacity to recognize a tragic health crisis in the making and reacting swiftly to protect the health of a community's children and families.

“Dr. Mona” now leads the MSU/Hurley Pediatric Public Health Initiative, bringing together experts in pediatrics, child development, psychology, epidemiology, nutrition, toxicology, geography, and education, together with MSU Extension and other partners. The intent is to address Flint’s widespread lead exposure from multiple fronts and to provide the tools and resources for the assessment, continued research, and monitoring interventions necessary for improving children’s health and development.

Access to clean water isn’t been the only health issue facing Flint. Since 2008, MSU medical geographer Rick Sadler has mapped food desert areas of the city. Dr. Sadler’s work visualizing areas of high blood lead levels juxtaposed with those without affordable good nutrition resources is helping the community develop responses to Flint’s cascading health crises. You need to remember that lead and its resulting toxic stress is only the latest health issue for this community, and any effective, sustainable solution will need to take that into account.

And as a lot of people have done to respond in a personal way to the water problem in Flint, Michigan State’s students are also stepping up to demonstrate community service in action. We’ve had 38 registered student groups volunteer to distribute water, collect plastic containers for recycling, and help the community in other ways in the past few months. We’re keeping track on the GiveGab application, which gives us a sense of the growing magnitude of the student contribution. Even before this unfolded, more than half our students last year registered for community service with our campus office.

I’ll just add that just as Michigan State supported the people of Flint long before the water tragedy unfolded, we will stand with that community in such real and substantial ways long after the world’s attention has moved on.

Encourage effort, reinforce success

I want to return to the beginning of my remarks today, to the direct relationship between Michigan State’s ability to serve Michigan’s communities in those communities. If we can’t literally be everywhere, we have the assets to deploy anywhere in Michigan thanks to what we already have embedded and our close relationships with community leaders. And driven by that big land-grant heart, we are trusted knowledge partners dedicated to working with people to build the human and intellectual infrastructure they need to be successful.

We spend twice the resources on outreach and engagement as AAU research university peers on average, bringing them the best people—like Drs. Hanna-Attisha and Sadler—and a wealth of global institutional experience. More than boots on the ground, we are a unique and highly networked system of “brains on the ground” at the

same time we are the state's most productive engine of social mobility through our undergraduate and graduate education and research programs.

I urge you to reward effort and reinforce success. I hope you can restore Michigan State to prior levels of support to help us prepare our state's residents and leaders for the challenges of today and tomorrow. Thank you for your attention and your consideration.

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¹ \$33,340, per 2015 Kelley Blue Book

² Bridge.com, 1/26/16; <http://bridgemi.com/2016/01/low-income-students-soar-at-some-colleges-struggle-at-others/>